

Claims

- [1] An emulsion composition containing:
- (A) a water-based solvent,
 - 5 (B) an organic solvent,
 - (C) a sulfonic group-containing polymer soluble in the component (A), and
 - (D) a polymer soluble in the component (B) but insoluble in water.
- 10 [2] An emulsion composition according to Claim 1, wherein the component (D) is an amino group-containing polymer.
- [3] An emulsion composition according to Claim 1 or 2, which is a W/O type (water-in-oil type) emulsion and wherein the component (B) has a vapor pressure higher than the vapor
- 15 pressure of the component (A) at least at a certain temperature T_{d1} .
- [4] An emulsion composition according to any of Claims 1 to 3, which is a W/O type (water-in-oil type) emulsion and wherein a volume of the component (C) is larger than the
- 20 volume of the component (D).
- [5] An emulsion composition according to Claim 1 or 2, which is an O/W type (oil-in-water type) emulsion and wherein the component (B) has a vapor pressure lower than the vapor pressure of the component (A) at least at a certain
- 25 temperature T_{d2} .
- [6] An emulsion composition according to Claim 1, 2 or 5, which is an O/W type (oil-in-water type) emulsion and wherein a volume of the component (C) is smaller than the volume of the component (D).
- 30 [7] An emulsion composition according to any of Claims 1 to

6, which has a volume resistance after drying, of 10^{-2} to 10^9 $\Omega \cdot \text{cm}$.

[8] A coating material composed of an emulsion composition set forth in any of Claims 1 to 7.

5 [9] A film obtained by removing, from an emulsion composition set forth in any of Claims 1 to 7, the component (A) and the component (B).

[10] A high-molecular solid electrolyte obtained by removing, from an emulsion composition set forth in any of Claims 1 to 10 7, the component (A) and the component (B).

[11] A filter obtained by removing, from an emulsion composition set forth in any of Claims 1 to 7, the component (A) and the component (B).